

CLAIMS (amended)

1. (Deleted)

5

2. (Deleted)

3. (Deleted)

10

4. (Deleted)

5. (Deleted)

6. (Deleted)

15

7. (Original) An optical information recording method
for recording data on an optical information recording and
reproducing medium having a plurality of recording layers
which allow recording and reproducing by irradiation with a
20 laser beam,

20

characterized in that when data recording is
performed on one recording layer, a recording state of the
other recording layer nearer a laser beam incident surface
than said one recording layer is examined by using
25 recording layer management information and if data recorded
and unrecorded parts are mixed together in an area whose
recording state is examined, an area for recording data of

said one recording layer is moved to another area.

8. (Original) An optical information recording and reproducing method for recording/reproducing data on and from an optical information recording/reproducing medium having a plurality of recording layers which allow recording and reproducing by irradiation with a laser beam, characterized in that when data reproducing is performed on one recording layer, a recording state of the other recording layer nearer a laser beam incident surface than said one recording layer is examined by using recording layer management information and if data recorded and unrecorded parts are mixed together in an area whose recording state is examined, data is reproduced from said one recording layer after dummy data is recorded in the data unrecorded part.

9. (Original) An optical information recording method for recording data on an optical information recording and reproducing medium having a plurality of recording layers which allow recording and reproducing by irradiation with a laser beam,

characterized in that when data recording is performed on one recording layer, a recording state of the other recording layer nearer a laser beam incident surface than said one recording layer is examined by using recording layer management information and if data recorded and unrecorded parts are mixed together in an area whose recording state is examined, data is recorded on the one

recording layer after dummy data is recorded in said data unrecorded part.

10. (Deleted)

5

11. (Deleted)

12. (Deleted)

10

13. (Deleted)

14. (Deleted)

15. (Deleted)

15

16. (Original) An optical information recording device for recording data on an optical information recording and reproducing medium having a plurality of recording layers which allow recording and reproducing by irradiation with a laser beam,

20

characterized by comprising at least reproducing means for reproducing recording layer management information containing at least information indicating recording states of the recording layers, condensing means for condensing a laser beam on a recording layer on which data is recorded, and laser beam power switching means for examining, when data recording is performed on one

25

recording layer by said condensing means, a recording state of the other recording layer nearer a laser beam incident surface than said one recording layer by using the recording layer management information reproduced by said reproducing circuit, and changing setting of a laser beam output for the recording based on a recording state of an area of said other recording layer stacked on an upper part of an area in which the recording is performed,

and in that if data recorded and unrecorded parts are mixed together in the area of the other recording layer stacked on the upper part of the area in which the recording is performed, the area in which the recording is performed by the condensing means is moved to another area.

17. (Original) An optical information recording and reproducing device for recording or reproducing data on or from an optical information recording and reproducing medium having a plurality of recording layers which allow recording and reproducing by irradiation with a laser beam,

characterized by comprising at least reproducing means for reproducing recording layer management information containing at least information indicating recording states of the recording layers, condensing means for condensing a laser beam on a recording layer on/from which data is recorded or reproduced, and laser beam power switching means for examining, when data is reproduced from one recording layer by said condensing means, a recording state of the other recording layer nearer a laser beam

incident surface than said one recording layer by using the recording layer management information reproduced by said reproducing circuit, and changing setting of a laser beam output for the recording or reproducing based on a

5 recording state of an area of said other recording layer stacked on an upper part of an area in which the recording or reproducing is performed,

and in that if data recorded and unrecorded parts are mixed together in the area of said other recording
10 layer stacked on the upper part of the area in which the recording or reproducing is performed, said condensing means reproduces data from said one recording layer after dummy data is recorded in the data unrecorded part.

18. (Original) An optical information recording device
15 for recording data on an optical information recording and reproducing medium having a plurality of recording layers which allow recording and reproducing by irradiation with a laser beam,

characterized by comprising at least reproducing
20 means for reproducing recording layer management information containing at least information indicating recording states of the recording layers, condensing means for condensing a laser beam on a recording layer on which data is recorded, and laser beam power switching means for
25 examining, when data is recorded on one recording layer by said condensing means, a recording state of the other recording layer nearer a laser beam incident surface than

said one recording layer by using the recording layer management information reproduced by said reproducing means, and changing setting of a laser beam output for the recording based on a recording state of an area of said other recording layer stacked on an upper part of an area in which the recording is performed,

and in that if data recorded and unrecorded parts are mixed together in the area of said other recording layer stacked on the upper part of the area in which the recording is performed, said condensing means records data on said one recording layer after dummy data is recorded in the data unrecorded part.

19. (Original) An optical information recording and reproducing medium having a plurality of recording layers which allow recording and reproducing by irradiation with a laser beam,

characterized in that each recording layer comprises a recording area in which user data is recorded, and a recording management area in which recording layer management information containing at least information indicating recording states of a plurality of areas into which the inside of said recording area is divided is recorded,

and recording layer management information of one recording layer is recorded in each of the recording management areas of said one recording layer and one or more recording layers farther from a laser beam incident

surface than said one recording layer.

20. (Original) The optical information recording and reproducing medium according to claim 19, wherein defect management information indicating a defect position of said recording layer is further recorded in the recording management area of each recording layer.

21. (Original) The optical information recording and reproducing medium according to claim 20, wherein the defect management information of said one recording layer is recorded in a recording management area of the other recording layer.

22. (Original) The optical information recording and reproducing medium according to claim 19, wherein a guide groove of a wobbling shape is formed in at least one track of said recording layer, and the guide groove of the wobbling shape is subjected to track modulation for indicating a track address.